CLAIMS

1. An apparatus for compressing an image, comprising:

5   a coding unit configured to generate code data by encoding data derived from image data;

a memory unit which stores truncation data items identified by respective data sequence numbers, wherein a truncation data item specifies a way in 10 which code data is removed from the generated code data, such that the larger the data sequence number, the larger an amount of code data removal, or such that the larger the data sequence number, the smaller the amount of code data removal; and

15   a rate control unit configured to identify a data sequence number of a truncation data item that provides a code data parameter substantially equal to a desired value, said code data parameter being responsive to the amount of code data removal.

20

2. The apparatus as claimed in claim 1, wherein said rate control unit includes:

a computing unit configured to compute the code data parameter according to a truncation data 25 item of a specified data sequence number; and

a data-sequence-number switching unit configured to change the specified data sequence number in response to comparison of the computed code data parameter with the desired value, thereby

5   identifying the data sequence number of the truncation data item that provides the code data parameter substantially equal to the desired value.

3. The apparatus as claimed in claim 2,

10   wherein said coding unit generates the code data for respective units of processing, and the removal of code data according to a truncation data item is independent in each of the units of processing.

15   4. The apparatus as claimed in claim 3, wherein said code data parameter is equal to a total amount of code-data removal in all the units of processing, said apparatus further includes a data-processing unit configured to compute amounts of

20   code-data removal in the respective units of processing and to store the computed amounts of code-data removal in memory, wherein said computing unit computes the code data parameter based on the computed amounts stored in the memory.

25

5. The apparatus as claimed in claim 4, wherein the generated code data in a given one of the units of processing is comprised of bitplanes, and said data-processing unit is further configured

5   to compute amounts of code-data removal with respect to removal of respective bitplanes in the given one of the units of processing.

6. The apparatus as claimed in claim 4,

10   wherein the generated code data in a given one of the units of processing is comprised of bitplanes, and said data-processing unit is further configured to compute amounts of code-data removal with respect to removal of respective numbers of bitplanes in the

15   given one of the units of processing.

7. The apparatus as claimed in claim 3, wherein said code data parameter is equal to a total amount of code data remaining after the code-data

20   removal in all the units of processing, said apparatus further includes a data-processing unit configured to compute amounts of code data remaining after the code-data removal in the respective units of processing and to store the computed amounts in

25   memory, wherein said computing unit computes the

code data parameter based on the computed amounts stored in the memory.

8. The apparatus as claimed in claim 7,
5 wherein the generated code data in a given one of the units of processing is comprised of bitplanes, and said data-processing unit is further configured to compute amounts of remaining code data with respect to removal of respective numbers of
10 bitplanes in the given one of the units of processing.

9. The apparatus as claimed in claim 1, wherein said coding unit performs two-dimensional
15 discrete wavelet transform so as to generate the code data for respective sub-bands, the removal of code data according to a truncation data item being independent in each of the sub-bands and being directed to one or more bits on a side of a lowest-
20 order bit in each of the sub-bands.

10. An apparatus for compressing an image, comprising:
a coding unit configured to generate code
25 data by encoding data derived from image data;

a memory unit which stores truncation data items identified by respective data sequence numbers, wherein a truncation data item specifies a way in which code data is removed from the generated code data, such that the larger the data sequence number, the higher a quality of a reproduced image obtained by decoding the generated code data after the removal of code data, or such that the larger the data sequence number, the lower the quality of the reproduced image; and

a rate control unit configured to identify a data sequence number of a truncation data item that provides a code data parameter substantially equal to a desired value, said code data parameter being responsive to an amount of code data removal.